

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 4 has been cancelled.

Claims 1, 5, 7 and 8 have been amended to read as follows:

1. (Amended) A method for improving the sequence fidelity of synthetic double-stranded oligonucleotides, comprising subjecting synthetic double-stranded oligonucleotides to preparative column chromatography ~~or gel chromatography~~ under denaturing conditions sufficient to separate synthetic double-stranded oligonucleotides into two populations of which one population is enriched for synthetic failures and the other population is depleted of synthetic failures.

5. (Amended) A method according to any one of claims ~~1-4~~ 1-3 wherein the oligonucleotides comprise synthetic double-stranded DNA.

7. (Amended) A method according to any one of claims ~~1-4~~ 1-3, wherein the side product separated is a molecule containing a uridine, apurinic, apyrimidinic or diaminopurine residue.

8. (Amended) A method according to any one of claims ~~1-4~~ 1-3, wherein the double-stranded oligonucleotides are synthesized chemically.